

# HAWAII

## FY 2022 Fast Facts



## **Top NSF-funded Academic Institutions for FY 2022**



## **NSF By The Numbers**

The National Science Foundation (NSF) is a <u>\$9.5 billion</u> independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense. NSF's vital role is to support basic research and researchers who create knowledge that transforms the future.





#### **Expanding the Frontiers of Science**

The Change Hawaii: Harnessing the Data Revolution for Island Resilience project aims to develop the appropriate tools and workforce to study and understand the existential threat of climate change on the state. Hawaii is currently considered underserved in climate analysis products because national analyses and monitoring networks are often restricted, resulting in data gaps and information scarcity for decision making in Hawaii. The diverse and complex climate and geography of Hawaii presents unique challenges to measure and gather reliable data to properly monitor weather-related events. Change HI is committed to producing actionable science resulting from data and climate interdisciplinary research and seeks to train a workforce in computational and climate science that would help diversify and regenerate the Hawaiian economy. The project establishes multicampus, multidisciplinary teams from four of Hawaii's higher education institutions — the **University of Hawaii at Manoa**, the **University of Hawaii at Hilo**, the **University of Hawaii - West Oahu** and **Chaminade University of Honolulu** — that are focusing on areas such as data science, climate science, cyberinfrastructure, education and workforce development. This will position Hawaii to confront climate change and support the state's economic diversification.

### **STEM Education and Broadening Participation**

NSF's Eddie Bernice Johnson INCLUDES Alliance Supporting Pacific Impact through Computational Excellence, or ALL-SPICE, proposes efforts to harness the data revolution to support sustainability, economic development and social justice in the Hawaii-Pacific region. ALL-SPICE, led by **Chaminade University of Honolulu** with partners at the University of Texas at Austin, Texas Advanced Computing Center and the University of Hawaii, is focusing on the development of regional data science capacity in support of Hawaii-Pacific progress towards the United Nations Sustainable Development Goals. The alliance is building educational and research capacity in data science for community impact in Hawaii and the U.S.-affiliated Pacific islands; adapting data science curriculum for online deployment to reach rural neighbor island and U.S.-affiliated pacific island participants; enhancing faculty research capacity in data science; developing new undergraduate data science research experiences; and producing new Pacific-focused data science courses for broad deployment across the alliance. Additionally, ALL-SPICE is curating a portfolio of data science training opportunities spanning K-20, targeting marginalized populations.



### **Regional Innovation Engines**

The NSF Engines program envisions fostering flourishing regional innovation ecosystems across the country, providing a unique opportunity to spur economic growth in regions that have not fully participated in the technology boom of the past few decades. The NSF Engines program uniquely harnesses the nation's science and technology research and development enterprise and regional-level resources. NSF Engines can catalyze robust partnerships rooted in scientific and technological innovation to positively impact the economy within a geographic region, address societal challenges, and advance national competitiveness. Find potential NSF engines in your state.

## EPSCoR

**COMPETITIVE RESEARCH** | Hawaii is one of 28 U.S. states or territories under <u>NSF's Established Program</u> to <u>Stimulate Competitive Research (EPSCoR</u>). Over **\$9,100,000** in awards have been made to Hawaii academic institutions through EPSCoR in FY 2022. For more information, <u>visit Hawaii's EPSCoR state web</u> <u>page.</u>

### NCSES

According to the <u>National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, which is housed in NSF, 31% of science, engineering and health doctorates conferred in Hawaii are made in life sciences. Visit Hawaii's science and engineering state profile to learn more!

| 37.12% | of <b>Hawall's</b> <u>higher education degrees</u> |
|--------|--|
|        | are concentrated in S&E fields.                    |
| 3.83%  | of <b>Hawaii's</b> workforce are employed          |

in S&E occupations. 1.74% of Hawaii's total employment is

attributable to knowledge - and technology - intensive industries.

### Learn More

**CHIPS & SCIENCE** – The CHIPS and Science Act's investments in the U.S. National Science Foundation will help the United States remain a global leader in innovation. Implementation of this legislation will be key to ensuring that ideas, talent and prosperity are unleashed across all corners of the nation. For more information, please visit NSF's CHIPS and Science website.

**RESEARCH SECURITY** – NSF is committed to safeguarding the integrity and security of science and engineering while also keeping fundamental research open and collaborative. NSF seeks to address an age of new threats and challenges through close work with our partners in academia, law enforcement, intelligence and other federal agencies. By fostering transparency, disclosure and other practices that reflect the values of research integrity, NSF is helping to lead the way in ensuring taxpayer-funded research remains secure. To learn more, please visit NSF's Research Security website.

**CONNECT WITH NSF** – For more information on NSF's impact in your state, please contact NSF's Office of Legislative and Public Affairs at <u>congressionalteam@nsf.gov</u>.